

1      **ABSTRACT**

2      Systems and methods for midstream determination of varying available  
3      bandwidth for streaming content between two network entities are described.  
4      During content streaming, a client requests a server to surge the content  
5      transmission rate. One or more bandwidth measurements are taken during the  
6      surge to determine if the increased transmission rate can be adequately managed.  
7      If the increased transmission rate can be adequately managed, the client may  
8      request the server to transmit remaining content at a transmission rate that is not  
9      greater than the increased, or surged, transmission rate. In a multi-bitrate file  
10     scenario, the surge rate may be higher than the rate of the fastest useable stream.  
11     In such a case, the fastest useable stream is selected. If the increased transmission  
12     rate is not suitable for future transmission, then the rate may remain at the original  
13     transmission rate.

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